

SEQUENCE LISTING

<110> Maines, Mahin D.

<120> BILIVERDIN REDUCTASE FRAGMENTS AND VARIANTS, AND
METHODS OF USING BILIVERDIN REDUCTASE AND SUCH
FRAGMENTS AND VARIANTS

<130> 176/60792

<140>

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<150> 60/141,309

<151> 1999-06-28

<150> 60/163,223

<151> 1999-11-03

<160> 37

<170> PatentIn Ver. 2.1

<210> 1

<211> 296

<212> PRT

<213> Homo sapiens

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Glu	Tyr	Pro	Met	Thr	Leu	Ser	Leu	Ala	Ala	Ala	Gln	Glu	Leu	Trp	Glu
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140

Ser Leu Asp Glu Val Arg Gln Ile Ser Leu Glu Asp Ala Leu Arg Ser
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Gln Glu Ile Asp Val Ala Tyr Ile Cys Ser Glu Ser Ser Ser His Glu
 65 70 75 80

Asp Tyr Ile Arg Gln Phe Leu Gln Ala Gly Lys His Val Leu Val Glu
 85 90 95

Tyr Pro Met Thr Leu Ser Phe Ala Ala Ala Gln Glu Leu Trp Glu Leu
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Ala Ala Gln Lys Gly Arg Val Leu His Glu Glu His Val Glu Leu Leu
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Met Glu Glu Phe Glu Phe Leu Arg Arg Glu Val Leu Gly Lys Glu Leu
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Leu Lys Gly Ser Leu Arg Phe Thr Ala Ser Pro Leu Glu Glu Glu Arg
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Phe Gly Phe Pro Ala Phe Ser Gly Ile Ser Arg Leu Thr Trp Leu Val
 165 170 175

Ser Leu Phe Gly Glu Leu Ser Leu Ile Ser Ala Thr Leu Glu Glu Arg
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Lys Glu Asp Gln Tyr Met Lys Met Thr Val Gln Leu Glu Thr Gln Asn
 195 200 205

Lys Gly Leu Leu Ser Trp Ile Glu Glu Lys Gly Pro Gly Leu Lys Arg
 210 215 220

Asn Arg Tyr Val Asn Phe Gln Phe Thr Ser Gly Ser Leu Glu Glu Val
 225 230 235 240

Pro Ser Val Gly Val Asn Lys Asn Ile Phe Leu Lys Asp Gln Asp Ile
 245 250 255

Phe Val Gln Lys Leu Leu Asp Gln Val Ser Ala Glu Asp Leu Ala Ala
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Glu Lys Lys Arg Ile Met His Cys Leu Gly Leu Ala Ser Asp Ile Gln
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Lys Leu Cys His Gln Lys Lys
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 <212> DNA
 <213> *Rattus norvegicus*

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<210> 6
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 <212> PRT
 <213> Artificial Sequence

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 <223> Description of Artificial Sequence: hydrophobic domain of BVR

<220>
 <221> PEPTIDE
 <222> (2)
 <223> where X is any aa

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<210> 7

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<211> 3

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: kinase motif
of BVR

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Ser Arg Arg

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<210> 11

<211> 3

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: kinase motif
of BVR

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Lys Gly Ser

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<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: kinase motif
of BVR

<220>

<221> PEPTIDE

<222> (3)

<223> where X is any aa

1. Introduction

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<223> Description of Artificial Sequence: protein
kinase C enhancer peptide of rBVR

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<210> 19

<211> 8

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: protein
kinase C inhibitor peptide of rBVR

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1 5

<210> 20

<211> 1014

<212> PRT

<213> Homo sapiens

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Gly Arg Ala Ser Cys Lys Lys Cys Ser Glu Ser Ile Pro Lys Asp Ser
20 25 30

Leu Arg Met Ala Ile Met Val Gln Ser Pro Met Phe Asp Gly Lys Val
35 40 45

Pro His Trp Tyr His Phe Ser Cys Phe Trp Lys Val Gly His Ser Ile
50 55 60

Arg His Pro Asp Val Glu Val Asp Gly Phe Ser Glu Leu Arg Trp Asp
65 70 75 80

Asp Gln Gln Lys Val Lys Lys Thr Ala Glu Ala Gly Gly Val Thr Gly
85 90 95

Lys Gly Gln Asp Gly Ile Gly Ser Lys Ala Glu Lys Thr Leu Gly Asp
100 105 110

Phe	Ala	Glu	Tyr	Ala	Lys	Ser	Asn	Arg	Ser	Thr	Cys	Lys	Gly	Cys	
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Met	Glu	Lys	Ile	Glu	Lys	Gly	Gln	Val	Arg	Leu	Ser	Lys	Lys	Met	Val
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Asp	Pro	Glu	Lys	Pro	Gln	Leu	Gly	Met	Ile	Asp	Arg	Trp	Tyr	His	Pro
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Gly	Cys	Phe	Val	Lys	Asn	Arg	Glu	Glu	Leu	Gly	Phe	Arg	Pro	Glu	Tyr
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Ser	Ala	Ser	Gln	Leu	Lys	Gly	Phe	Ser	Leu	Leu	Ala	Thr	Glu	Asp	Lys
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Glu	Ala	Leu	Lys	Lys	Gln	Leu	Pro	Gly	Val	Lys	Ser	Glu	Gly	Lys	Arg
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Lys	Gly	Asp	Glu	Val	Asp	Gly	Val	Asp	Glu	Val	Ala	Lys	Lys	Lys	Ser
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Gln	Asn	Asp	Leu	Ile	Trp	Asn	Ile	Lys	Asp	Glu	Leu	Lys	Lys	Val	Cys
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Ser	Thr	Asn	Asp	Leu	Lys	Glu	Leu	Leu	Ile	Phe	Asn	Lys	Gln	Gln	Val
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Pro	Ser	Gly	Glu	Ser	Ala	Ile	Leu	Asp	Arg	Val	Ala	Asp	Gly	Met	Val
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Phe	Gly	Ala	Leu	Leu	Pro	Cys	Glu	Glu	Cys	Ser	Gly	Gln	Leu	Val	Phe
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Lys	Ser	Asp	Ala	Tyr	Tyr	Cys	Thr	Gly	Asp	Val	Thr	Ala	Trp	Thr	Lys
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Cys	Met	Val	Lys	Thr	Gln	Thr	Pro	Asn	Arg	Lys	Glu	Trp	Val	Thr	Pro
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Lys	Glu	Phe	Arg	Glu	Ile	Ser	Tyr	Leu	Lys	Lys	Leu	Lys	Val	Lys	Lys
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Gln	Asp	Arg	Ile	Phe	Pro	Pro	Glu	Thr	Ser	Ala	Ser	Val	Ala	Ala	Thr
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Ala Trp His Ser Lys Asn Phe Thr Lys Tyr Pro Lys Lys Phe Tyr Pro
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Leu Glu Ile Asp Tyr Gly Gln Asp Glu Glu Ala Val Lys Lys Leu Thr
645 650 655

Val Asn Pro Gly Thr Lys Ser Lys Leu Pro Lys Pro Val Gln Asp Leu
660 665 670

Ile Lys Met Ile Phe Asp Val Glu Ser Met Lys Lys Ala Met Val Glu
675 680 685

Tyr Glu Ile Asp Leu Gln Lys Met Pro Leu Gly Lys Leu Ser Lys Arg
690 695 700

Gln Ile Gln Ala Ala Tyr Ser Ile Leu Ser Glu Val Gln Gln Ala Val
705 710 715 720

Ser Gln Gly Ser Ser Asp Ser Gln Ile Leu Asp Leu Ser Asn Arg Phe
725 730 735

Tyr Thr Leu Ile Pro His Asp Phe Gly Met Lys Lys Pro Pro Leu Leu
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Asn Asn Ala Asp Ser Val Gln Ala Lys Val Glu Met Leu Asp Asn Leu
755 760 765

Leu Asp Ile Glu Val Ala Tyr Ser Leu Leu Arg Gly Gly Ser Asp Asp
770 775 780

Ser Ser Lys Asp Pro Ile Asp Val Asn Tyr Glu Lys Leu Lys Thr Asp
785 790 795 800

Ile Lys Val Val Asp Arg Asp Ser Glu Glu Ala Glu Ile Ile Arg Lys
805 810 815

Tyr Val Lys Asn Thr His Ala Thr Thr His Asn Ala Tyr Asp Leu Glu
820 825 830

Val Ile Asp Ile Phe Lys Ile Glu Arg Glu Gly Glu Cys Gln Arg Tyr
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Lys Pro Phe Lys Gln Leu His Asn Arg Arg Leu Leu Trp His Gly Ser
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Arg Thr Thr Asn Phe Ala Gly Ile Leu Ser Gln Gly Leu Arg Ile Ala
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<211> 29

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: primer

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<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: probe

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<212> DNA .

<213> Artificial Sequence

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<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: protein
kinase C enhancer peptide of hBVR

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Lys Lys Arg Ile Leu His Cys
1 5

<210> 35

<211> 8

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: protein
kinase C inhibitor peptide of hBVR

<400> 35

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<210> 36

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<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: primer

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<210> 37

<211> 28

2025年12月31日

<223> Description of Artificial Sequence: primer

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[illegible]